

Work Order ID 154446

Tuesday, December 13, 2016 8:07:40 AM

154446

Page 1

Item ID: D3910-7 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Crosstube Lug
Start Date: 12/13/2016 Start Qty: 20.00 ***20*** Cust Item ID:
Required Date: 12/28/2016 Req'd Qty: 20.00 ***20*** Customer:
Reference:

Approvals: Process Plan: DAS 13 Date: DEC 13 2016 Tooling: _____ Date: _____ Run Start ***NR1***
QC: S-89 Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D3910	E								
110	Outsource process - Machining	0.00							
110	HAAS CNC VERTICAL MACHINING #1								
Outsource5	Memo	0.00							
Outsource process - Machining	Issue P/O to Metec : <u>34631</u>								
	Machine as per dwg								
	C of C is required								
120	Receive & Inspect for Damage & Mat'l Certs	0.00							
120									
Packaging	Memo	0.07							
Packaging	Ensure C of C is attach								
130	QC6- Inspect dimensions to drawing	0.00							
130									
QC	Memo	0.00							
Quality Control									

20 DEC 14 2016 DAS 13
9-89

20x SP/6-12-21

20 FEB 03 2017 DAS 38
9-89

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

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Page 2

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140 *140* HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1 Memo <i>NIA</i>	0.00 DAS 38 0.10 9-89							
150 *150* QC Quality Control	QC7-Inspect Chemical Conversion Coat Memo <i>NIA</i>	0.00 DAS 38 0.03 9-89							
160 *160* Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum Memo START TIME: _____ OVEN TEMPERATURE: _____ FINISH TIME: _____ <i>NIA</i>	0.00 DAS 38 0.03 9-89							

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170	QC3- Inspect Part Finish	0.00							DAS 38 9-89
170						20			
QC	Memo	0.03							
Quality Control									FEB 03 2017
180	Identify as per dwg & Stock Location: <u>ST524</u>	0.00							DAS 6 9-89
180						20			
Packaging	Memo	0.03							
Packaging									
190	QC21- Final Inspection - Work Order Release	0.00							DAS 21 9-89
190									
QC	Memo	0.33							
Quality Control									FEB 06 2017

 FEB 06 2017

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

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OTHER : ☐			

Picklist Print

Tuesday, December 13, 2016 8:07:40 AM

Work Order ID: 154446

154446

Parent Item: D3910-7

D3910-7

Parent Item Name: Crosstube Lug

Start Date: 12/13/2016

Required Date: 12/28/2016

Start Qty: 20.00

Required Qty: 20.00

Comments: IPP REV:A 14.05.21 NEW ISSUE DD VERF:JFS

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2423		Manufactured	No				f	423.7855		2.526316			
-------	--	--------------	----	--	--	--	---	----------	--	----------	--	--	--

D2423

Lug Extrusion

**

FEB 06 2017

Location

Loc Qty

Loc Code

Metec

423.7855307

127892

36.5122647

131451

98.954451

148835

288.318815

D3910-7P

Purchased

No

Each

0.0000

20

D3910-7P

Crosstube Lug

**

20x 50/6-12-21

DQA: _____ Date: _____

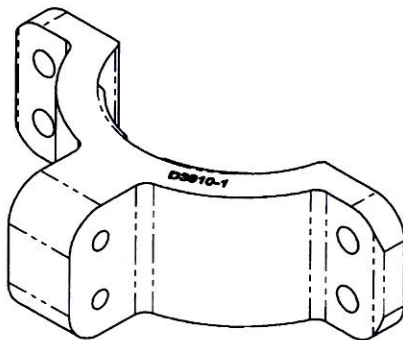


WORK ORDER NON-CONFORMANCE / UPDATE

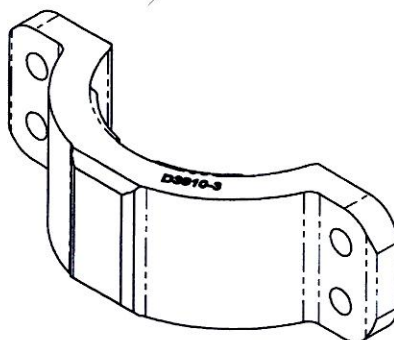
QA Closed: _____ Date: _____

Work Order update only ☐

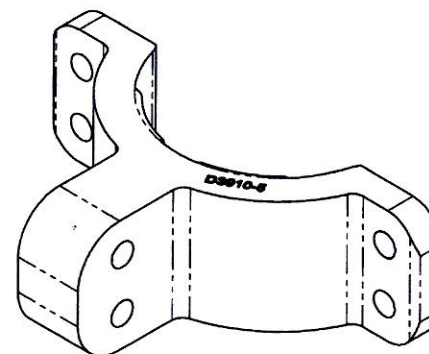
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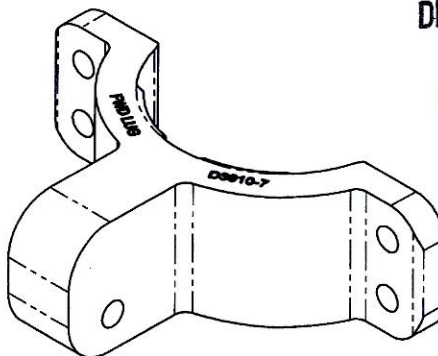
D3910-1 X-TUBE LUG



D3910-3 X-TUBE LUG



D3910-5 X-TUBE LUG



D3910-7 X-TUBE LUG

DEC 13 2016

DAS
13
9-59

W10:154446

RELEASED

2014 JUN 05

ECN 14-572

NOTES:

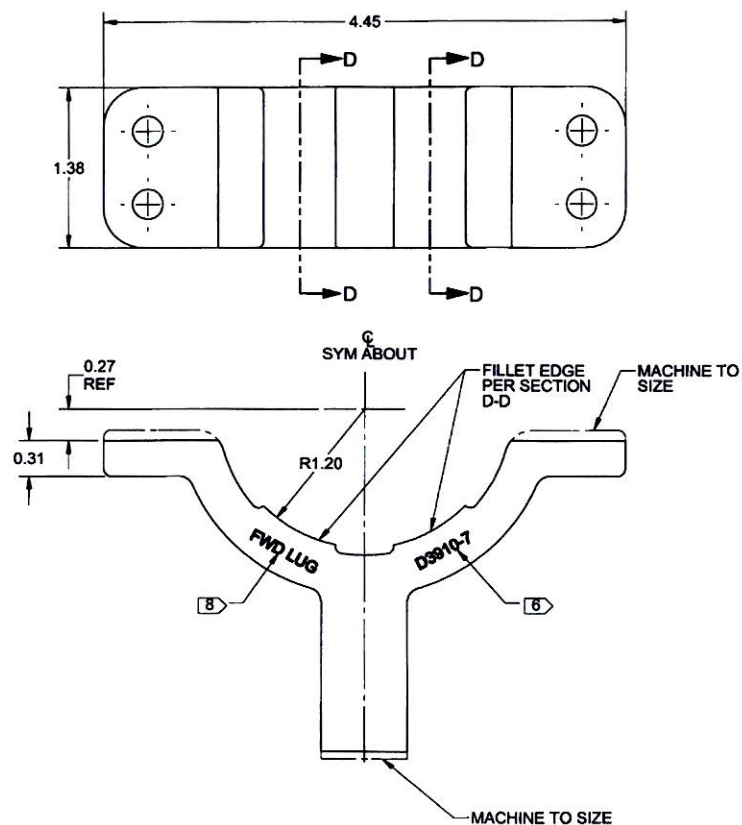
- 1) MATERIAL: MAKE FROM D2423 EXTRUSION
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE PART NUMBER TO A DEPTH OF 0.010 $\pm$ 0.005 IN THIS LOCATION WITH A TOOL TIP RADIUS OF 0.015 $\pm$ 0.005
- 7) WEIGHT -1: 0.32 lbs
-3: 0.25 lbs
-5: 0.36 lbs
-7: 0.37 lbs
- 8) IDENTIFICATION: ENGRAVE "FWD LUG" TO A DEPTH OF 0.010 $\pm$ 0.005 IN THIS LOCATION WITH A TOOL TIP RADIUS OF 0.015 $\pm$ 0.005

E	ADD -7 PER NCR14-3871	AJS	14.05.16
D	CHANGED FASTENER HOLES IN -5 FOR 1/4" HARDWARE. REASON: EASE OF INSTALLATION.	AJS	13.08.14
C	ADD -5.	AJS	13.08.08
B	Ø0.257 HOLES: 4 PL WAS 2 PL (A3-2) & (A3-3); R0.34 FILLET WAS R0.50 (A3-2) & (A3-3). REASON: SEE TR-D350-607-2	JPH	10.03.16
A	NEW ISSUE	JPH	10.03.04
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	A	DRAWING NO.	REV. E
MFG. APPR.	A	D3910	SHEET 1 OF 5
APPROVED	A	TITLE	SCALE
DE APPR.	A	X-TUBE LUG (350)	NTS
DATE	14.05.16	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

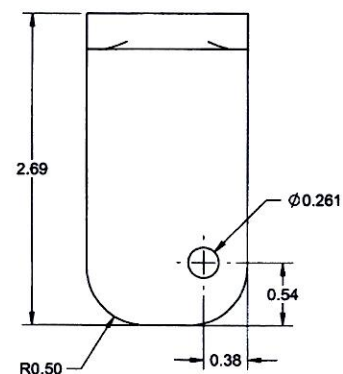
SECTION D-D



ROUND EDGE
R0.06 MIN - 0.10 MAX
2 PL



D3910-7 X-TUBE LUG



RELEASED

2014 JUN 05

DESIGN	AJS	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	J	DRAWING NO.	REV. E
MFG. APPR.	J	D3910	SHEET 5 OF 5
APPROVED	J	TITLE	SCALE
DE APPR.	J	X-TUBE LUG (350)	NTS
DATE	14.05.16	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO34631**

Purchase Order Date 12/14/2016

PO Print Date 12/14/2016

Page Number 1 of 2

Order From :
METEC METAL TECHNOLOGY INC.
20 TERRY FOX DRIVE PO BOX 781
VANKLEEK HILL, ON K0B 1R0
CA

VC-MET003

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name
Vendor Phone 613 678 3957

Ship To Contact
Ship To Phone
Ship Via: Dart Truck
Ship Acct:

Buyer Chantal Lavoie
Customer POID
Customer Tax # 10127-2607
Terms Net 10
Currency CAD
FOB Destination-Collect

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	D2230-1P	Lug	1/5/2017 Yes 1/5/2017		50.00 Each	\$16.10	\$805.00
AS PER DWG D2230 REV. G B154438 ALODINE AND PAINT AS PER QSI 005							

Line Total: \$805.00

2	D3910-7P	Crosstube Lug	1/5/2017 Yes 1/5/2017	FN	20.00 Each	\$16.10	\$322.00
AS PER DWG D3910 REV. E B154446 ALODINE AND PAINT AS PER QSI 005							

Line Total: \$322.00

Note:

DAS
38
9-89

12/14/2016



20 Terry Fox Drive
Vankleek Hill, Ontario K0B 1R0 , Canada
Tel: (613) 678-3957
Fax: (613) 678-3956

Delivery Slip No.: 21498
Date: Dec 15, 2016
Page: 1

Sold to: Dart Aerospace Ltd. Att. Linda Lacelle 1270 Aberdeen Street Hawkesbury, Ontario K6A 1K7	Ship to: Dart Aerospace Ltd. Att. Linda Lacelle 1270 Aberdeen Street Hawkesbury, Ontario K6A 1K7
Order No.: 34631	Sold By: VanDenYssel, David
Shipped By: your truck	Ship Date: Dec 15, 2016

Description	Unit	Ordered quantity	Shipped quantity	Backorder quantity
D2230-1 Mounting Lug	Each	50		50
✓ D3910-7 Crosstube Lug, as per drawing D3910 Rev.E	Each	20	20	
D3910-5 Crosstube Lug	Each	20	20	
The delivered goods must be inspected upon receipt to confirm compliance. Should there be discrepancies please notify METEC within 30 days of delivery. The goods are otherwise deemed accepted.				
Received by _____		Thank you for your order!		



20 Terry Fox Drive, Vankleek Hill, Ontario K0B 1R0

Tel. (613) 678-3957 & (613) 678-2782 Fax (613) 678-3956 metec@metec.ca

CERTIFICATE OF CONFORMITY

SOLD TO:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, Ont.
K6A 1K7

SHIPPED TO:

same

<u>QUANTITY</u>	<u>PART NUMBER</u>	<u>PART NAME</u>	<u>P.O. NUMBER</u>
<u>20</u>	D3910-7	Lug Paint Batch # 20370 Material B131451	33388
20	D3910-5	Lug Paint Batch # 20715 Material B148835	33388

Material supplied by DART

We hereby certify that the above parts were made in conformance with applicable drawings.

METEC Metal Technology Inc.

Jan Norris

Vankleek Hill, December 15, 2016